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No. 259 Creep Tester

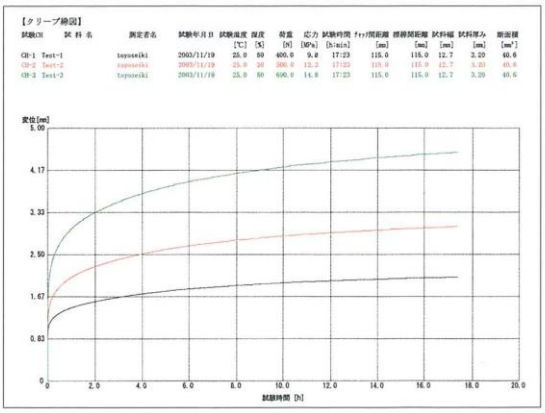
■APPLICATION

Plastic creep testing machine meant for JIS K 7115 (ISO 899-1), especially for tensile creep.
Also have optional jigs for compression/bending creep test for smaller specimens as well as jigs for rubber specimens. Conventional creep testers in the market had required weight mount/dismount labor. This Creep Tester motorizes the weight switchovers to save labor. Optional data processing unit can be attached to monitor distortion continuously.

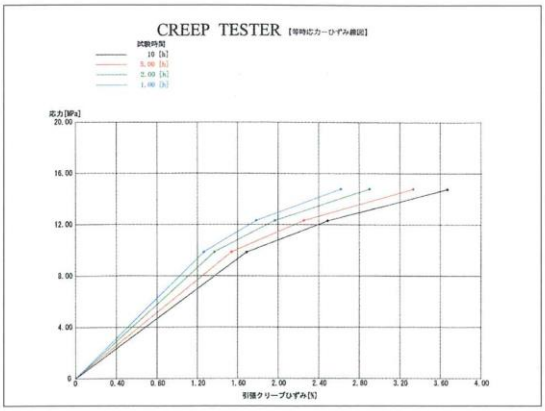
■FEATURES

- Operator does not need to mount weights manually as load setting is by motor-driven action.
- Load setting is by 1N step.　High resolution to allow more accurate load setting per cross-section.
- Other than Constant Load Test Method, Constant Stress Test Method is possible by automatic correction of cross-section of test piece (Chuck-to-chuck distance correction method – Read-shaped test piece).　Constant Stress Test Method for dumbbell-shaped test piece is available by adding mark tracing device (Optional).
- Clearance between load lever and lever buffer is automatically controlled to minimize shock from specimen break.
- Elongation gauge is attached to inactive chuck base so creep data is more accurate.
- Touch-screen control panel allows high operability.

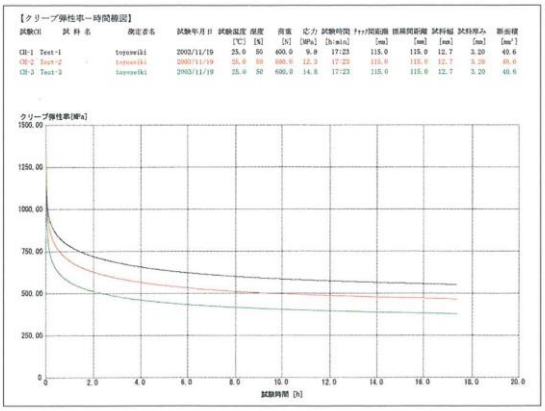
Touch screen



Creep diagram



Stress-Strain diagram



Creep elastic modulus-Time diagram

■SPECIFICATIONS

Model	C100-3 C100-5 C100-6	C200-3 C200-5 C200-6	C300-3 C300-5 C300-6	C10003 C10006*1
Loading system	Lever weight moving system			
Test specimen	JIS K 7161-2 (ISO 527-2) type 1A and 1B JIS K 7115 (ISO 899-1) special specimen type No.1, No.2, No.4 and No.5			
Load range	10 to 1000N	20 to 2000N	30 to 3000N	100 to 10000N
Number of test specimens	C100-3: 3 stations C100-5: 5 stations C100-6: 6 stations	C200-3: 3 stations C200-5: 5 stations C200-6: 6 stations	C300-3: 3 stations C300-5: 5 stations C300-6: 6 stations	C10003: 3 stations C10006: 6 stations
Load steps	1N			10N
Chuck to chuck distance	60 to 180mm (Chuck opening: 8mm)			
Elongation range	0 to 50mm	0 to 30mm	0 to 25mm	0 to 50mm
Displacement measurement (Gauge length)	Rotary encoder (Resolution 0.01mm)			
Test mode	Constant load test, constant stress test (chuck to chuck system)*2			
Temp. range	RT+approx.20°C to 200°C			
Temp. distribution	±1% or less (50 to 200°C, vicinity of specimen)			
Power requirement	Three-phase, AC200V, 50/60Hz, 10.4kVA (C100-3) *(17.3kVA with optional temp. bath)* Three-phase, AC200V, 50/60Hz, 20.8kVA (C1000-6) *(34.6kVA with optional temp. bath)*			
Dimensions Main unit Control panel	W1470 x D1730 x H1860mm W570 x D530 x H1600mm			W1400 x D2600 x H2060mm*3 W570 x D530 x H1600mm
Weight	Approx. 1200kg			Approx. 2000kg
Related standards	JIS K 7115 (ISO 899-1) ASTM D 2990			

*1: In model C1000, 6 test specimens can be tested by connecting two C1000 units (with 3 test specimens respectively).

*2: Constant stress test

(1) Chuck to chuck system:
A test for a test specimen of which the cross-sectional area is constant between the chucks (such as a strip specimen). The test is conducted with a constant stress while correcting the cross-sectional area according to the displacement between the chucks.

(2) Gauge length system:
A test for irregular-shaped test specimens such as a dumbbell specimen. The test is conducted with a constant stress while correcting the cross-sectional area according to the displacement of gauge length. It needs the optional extensometer (Model IM).

*3: Dimensions of model C10003 (3 stations model)

■OPTIONS

Name	Model	Description
Compression chuck	CC-1	Cage type, specimen diameter up to 40mm
Flexural chuck	CB-1	Cage type, specimen width up to 400mm, span up to 100mm
Thermostatic chamber	HT1	Room temp. + Approx. 20 to 250°C
	LHT1	-50 to 250°C
	LHT2	-30 to 200°C
Humidity chamber	M1	Humidity 25%RH to 95%RH Possible to combine together with HT1, LHT1 and LHT2
Extensometer	IM	Contact type
Data processing unit	DATA-K	Conforms to JIS K 7115 (ISO 899-1)

Specifications are subject to change without notice.

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